WHAT IS CLAIMED IS:

1. A gearing switch device comprising:

an input gear;

a casing having a receiving space and a slot defined through a wall of the casing;

a speed reduction device received in the casing and having a disk which has a plurality of planet gears on a first side of the disk and the input gear located between and engaged with the planet gears, an output gear connected to the other side of the disk, a ring gear having inner teeth in an inner periphery and outer teeth in an outer periphery of the ring gear, the planet gears engaged with the inner teeth, a plurality of transferring gears connected to the casing and engaged with the outer teeth;

a switch assembly having a switch member with a central hole and a plurality of recesses defined in an outer periphery of the switch member such that the transferring gears located in the recesses, each recess having engaging teeth defined in a side thereof, a protrusion extending radially outward from the switch member and through the slot of the casing;

a plurality of idle gear sets connected to a side of the switch member each having a first idle gear and a second idle gear, teeth of each of the first idle gear and the second idle gear located in alignment with the engaging teeth of the recesses, the first idle gear, the second idle gear and the engaging teeth located at different radial positions such that only one of the first idle gear, the second idle gear and the engaging teeth is engaged with the input gear in the same time, one of the first idle gear, the second idle gear or the engaging teeth being alternatively engaged with the transferring gears.

2. The switch device as claimed in Claim 1, wherein a flexible boss extends from an outer periphery of the casing and located beside the slot, a switching knob connected to the protrusion and having a plurality of notches so that the flexible boss is engaged with one of the notches.

3. The switch device as claimed in Claim 1, wherein the first idle gear that is engaged with the input gear of each of the idle gear sets includes an upper gear and a lower gear which is co-axially connected to the upper gear, the upper gear and the lower gear having different number of teeth, the upper gear engaged with the second idle gear in the same idle gear set and the lower gear engaged with the transferring gear.

4. The switch device as claimed in Claim 1, wherein the second idle gear that is not engaged with the input gear of each of the idle gear sets includes an upper gear and a lower gear which is co-axially connected to the upper gear, the upper gear and the lower gear having different number of teeth, the upper gear engaged with the first idle gear in the same idle gear set and the lower gear engaged with the transferring gear.

5. The switch device as claimed in Claim 1, wherein the input gear includes an upper portion and a lower portion which is co-axially connected to the upper portion, the upper portion and the lower portion having different number of teeth, the upper portion engaged with one of the first idle gear and the second idle gear, the lower portion engaged with planet gears.

6. The switch device as claimed in Claim 1, wherein the transferring gear includes an upper transferring gear and a lower transferring gear which is co-axially connected to the upper transferring gear, the upper transferring gear and the lower transferring gear having different number of teeth, the upper transferring

gear engaged with one of the first idle gear and the second idle gear in the same idle gear set and the lower transferring gear engaged with the gear ring.

7. The switch device as claimed in Claim **1**, wherein a number of the idle gears in each of the idle gear set can be increased.

8. The switch device as claimed in Claim **1**, wherein a number of the idle gears composed of an upper gear and a lower gear in each of the idle gear set is increased.